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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,504	08/27/2003	Yosuke Inomata	81872.0052	6973

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EXAMINER

ALANKO, ANITA KAREN

ART UNIT	PAPER NUMBER
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1765

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/650,504

Applicant(s)

INOMATA ET AL.

Examiner

Anita K. Alanko

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/10/06 election.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-12, 15-19, 22 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 14, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/11/06; 1/23/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Applicant's election without traverse of Group II in the reply filed on April 10, 2006 is acknowledged.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: explicit basis for the new limitation in claim 20 appears to be missing from the specification. Since there are multiple relative gaps, basis should be provided in the specification to recite where in the figures the gap is.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cain (US 5,503,881).

Cain discloses a dry etching method comprising:

placing a substrate 96 to be etched inside a chamber (Fig.3B, col.3, lines 54-65); and

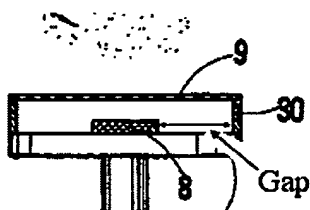
covering said substrate to be etched with a plate 92 provided with a number of opening portions ("apertures" in bottom surface 94),

wherein a distance between a surface opposing said substrate to be etched and said substrate to be etched in a peripheral portion (db' and db'') is set shorter (col.3, line 62) than a distance between the surface opposing said substrate to be etched and said substrate to be etched in a central portion of said plate (db'').

Claims 20-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nishibayashi et al (US 5,417,798).

Nishibayashi discloses a dry etching method comprising:
placing a substrate 8 to be etched inside a chamber 1 (Fig.5); and
covering said substrate to be etched with a plate 9 provided with a number of opening portions (col.5, lines 20-21),

wherein a protruding wall 30 is provided to said plate on a surface opposing said substrate to be etched and said protruding wall is separated from a nearest surface of said substrate by a gap (see below, excerpt from Fig.5).



Response to Amendment

The drawings filed on December 27, 2005 are acceptable. The objection to the drawings is thus withdrawn. The objection to the specification is withdrawn since basis for claim 6 is found at page 21. The 35 USC 102 rejection over JP 61-238981 is withdrawn. Applicant's point

is well taken that JP '981 shows a convex surface, not a concave surface. The 35 USC 102 rejection over Jurgensen is withdrawn. Jurgensen does not disclose a gap as newly cited in amended claim 20. The 35 USC 103 rejections are withdrawn since the claims are withdrawn from consideration.

The specification is objected to as not providing explicit basis for where the gap is. Claims 13-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cain (US 5,503,881). Claims 20-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nishibayashi et al (US 5,417,798).

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Examiner notes that apparatus limitations are given little weight in method claims. Thus while the arguments about the protruding wall trapping residues and increasing homogeneity are noted, the significance of how the limitation of a gap between the protruding wall and the substrate affects the method, as broadly cited, is unclear.

An electrode may comprise a plate, as broadly cited.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art shows etching methods using curved plates that have openings.

Art Unit: 1765

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K. Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon-Fri until 2:30 pm (Wed until 11:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita K. Alanko

Anita K Alanko
Primary Examiner
Art Unit 1765